I. AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Cancelled)

2. (Currently Amended) The method in Claim [[1]] 9, wherein the first parameter and the second parameter are derived from sampled values of the first system metric.

3. (Currently Amended) The method in Claim [[1]] 9, wherein the first parameter and the second parameter are derived from at least one statistical parameter of the sampled values of the first system metric.

4. (Original) The method in Claim 3, wherein the at least one statistical parameter of the sampled values of the first system metric includes the first moment of the sampled values.

5. (Original) The method in Claim 4, wherein the at least one statistical parameters of the sampled values of the first system metric further includes the second moment of the sampled values.

6. (Currently Amended) The method in Claim [[1]] 9, further comprising assuming the sampled value of the first system metric that is not reported with an average, wherein the average is an average of previously sampled data of the first system metric.

7. (Previously Presented) The method in Claim 6, wherein the average is a running average.

8. (Currently Amended) The method in Claim [[1]] 9, further comprising assuming the sampled value of the first system metric that is not reported with an average, wherein the first parameter is zero and the second parameter is a positive number.

9. (Currently Amended) ~~The method in Claim 1, further comprising~~ A method for reducing the amount of data of system metrics collected or reported from agent nodes to a system performance monitor for system performance monitoring and analysis, the method comprising the steps of:

obtaining a sampled value of a first system metric;

reporting the sampled value of the first system metric if the sampled value is not between a first parameter and a second parameter, wherein the first parameter and the second parameter are any real numbers;

not reporting the sampled value if the sampled value is between the first and second parameters;

calculating a weighted running average, wherein—

$\bar{d}_n(w) = d_n w + \bar{d}_{n-1}(1-w)$,

$\bar{d}_n$ and $\bar{d}_{n-1}$ are the weighted running average after n'th or (n-1)'th sampling,

w is the weighing factor for the sampling,

$$S_n = S_{n-1} + (n-1)(d_n - \bar{d}_{n-1})^2 / n,$$

$\sigma_n^2 = S_n / n$,

~~wherein~~ S_n [[,]] and S_{n-1} are the sum of the differences squared,

σ_n is the standard deviation,

calculating the first parameter to be $(\bar{d}_n - a\sigma_n)$; and

calculating the second parameter to be $(\bar{d}_n + b\sigma_n)$, wherein a and b are two constant real numbers.

10. (Original) The method in Claim 9, wherein a and b are any real numbers between 0.5 and 3.1.

11. (Original) The method in Claim 10, wherein a and b are 1.

12. (Original) The method in Claim 9, wherein continuing sampling is repeated for N times, wherein N is an integer.

13. (Currently Amended) The method in Claim 12, wherein ~~the~~ w is between $1/N$ and $2/N$.

14. (Currently Amended) The method in Claim 12, wherein N is determined by ~~the~~ a confidence interval cl [[,]] and ~~the~~ a tolerable variance error e_v, wherein $e_v = \frac{100 f(cl)^2}{N}$, and wherein $f(cl)$ is the $(1 + cl/100)/2$-quantile of the unit normal distribution.

15. (Currently Amended) The method in Claim 9, further comprising:

reporting the weighted running average $\bar{d}_{iN}$, wherein iN is a multiple of N, wherein i is an integer; and

reporting $\bar{d}_n$ and replacing $\bar{d}_{iN}$ with $\bar{d}_n$ when the $|\bar{d}_n - \bar{d}_{iN}|$ is greater than dd, wherein dd is a real number.

16. (Original) The method in Claim 15, wherein dd is σ_n.

17. (Currently Amended) The method in Claim 9, wherein ~~the~~ $w = c/n$, wherein c is a real number, and wherein n is the n'th sampling.

18. (Original) The method in Claim 17, wherein c is between 0.5 and 2.

19. (Currently Amended) The method in Claim [[1]] 9, further comprising:

~~sampling a second system metric and~~ obtaining a sampled value of ~~the~~ a second system metric;

calculating the correlation coefficient *cc* between the sampled value of the first system metric and the second system metric after *M* sampling;

stopping sampling and stopping reporting the sampled value of the second system metric if |*cc*| is not less than a threshold; and

continuing sampling and reporting the sampled value of the second system metric if |*cc*| is less than a threshold, wherein |*cc*| is the absolute value of correlation coefficient *cc*.

20. (Currently Amended) The method in Claim [[1]] 9, further comprising:

receiving, at the system performance monitor, the reported sampled value of the first system metric; and

assuming, at the system performance monitor, the sampled value of the first system metric as an average for the sampled value not reported.

21. (Currently Amended) The method in Claim 20, further comprising displaying the received and assumed values of the first system metric.

22-26. (Cancelled)

27. (Currently Amended) The computer system module as in Claim [[26]] 34, wherein the first parameter and the second parameter are derived from sampled values of the first system metric.

28. (Currently Amended) The computer system module as in Claim [[26]] 34, wherein the first parameter and the second parameter are derived from at least one statistical parameter of the sampled values of the first system metric.

29. (Original) The computer system module as in Claim 28, wherein the at least one statistical parameter of the sampled values of the first system metric includes the first moment of the sampled values.

30. (Original) The computer system module as in Claim 29, wherein the at least one statistical parameters of the sampled values of the first system metric further includes the second moment of the sampled values.

31. (Currently Amended) The computer system module as in Claim [[26]] 34, wherein the controller module is operative to calculate an average, wherein the average is an average of previously sampled data of the first system metric.

32. (Currently Amended) The computer system module as in Claim [[26]] 34, wherein the controller module is operative to calculate an average, wherein the average is a running average.

33. (Currently Amended) The computer system module as in Claim [[26]] 34, wherein the first parameter is zero and the second parameter is a positive number.

34. (Currently Amended) ~~The computer system module as in Claim 26,~~ A computer system module for system performance monitoring, reporting and analysis, the module comprising:

a controller module operative to control the system performance monitoring; and

a sampling module coupled to the controller module, operative to—

sample at least a first system metric, and

obtain a sampled value of the first system metric,

wherein each sampled value of the first system metric is reported if the sampled value is not between a first parameter and a second parameter, and not reported if the sampled value is between the first and second parameters,

wherein the first parameter and the second parameter are any real numbers, and

wherein the controller module is operative to—

calculate a weighted running average, wherein—

$\bar{d}_n(w) = d_n w + \bar{d}_{n-1}(1-w)$,

$\bar{d}_n$ and $\bar{d}_{n-1}$ are the weighted running average after n'th or (n-1)'th sampling,

w is the weighing factor for the sampling, $S_n = S_{n-1} + (n-1)(d_n - \bar{d}_{n-1})^2 / n$,

$\sigma_n^2 = S_n / n$,

~~wherein~~ S_n [[,]] and S_{n-1} are the sum of the differences squared, and

σ_n is the standard deviation[[,]] ; and

[[to]] calculate the first parameter to be $(\bar{d}_n - a\sigma_n)$ and the second parameter to be $(\bar{d}_n + b\sigma_n)$, wherein a and b are two constant real numbers.

35. (Currently Amended) The computer system module in Claim [[26]] 34, wherein the controller module is operative to stop sampling after N times, wherein N is an integer.

36. (Currently Amended) The computer system module in Claim 35, wherein N is determined by a confidence interval cl [[,]] and a tolerable variance error e_v, wherein $e_v = \frac{100 f(cl)^2}{N}$, and wherein $f(cl)$ is the $(1+cl/100)/2$-quantile of the unit normal distribution.

37. (Currently Amended) The computer system module in Claim 35, wherein the controller module is operative to—

report the weighted running average $\bar{d}_{iN}$, wherein iN is a multiple of N, wherein i is an integer; and

[[to]] report $\bar{d}_n$ when the $|\bar{d}_n - \bar{d}_{iN}|$ is greater than dd, wherein dd is a real number.

38. (Original) The computer system module in Claim 37, wherein dd is σ_n.

39. (Currently Amended) The computer system module in Claim 34, wherein the $w = c/n$, wherein c is a real number, and wherein n is the n'th sampling.

40. (Currently Amended) The computer system module in Claim [[26]] 34, wherein the controller module is operative to—

sample a second system metric; ~~and to~~

obtain a sampled value of the second system metric;

[[to]] calculate the correlation coefficient cc between the sampled value of the first system metric and the second system metric after M sampling;

[[to]] stop sampling and not report the sampled value of the second system metric if $|cc|$ is not less than a threshold; and

[[to]] continue sampling and report the sampled value of the second system metric if $|cc|$ is less than a threshold, wherein $|cc|$ is the absolute value of correlation coefficient cc.

41. (Original) The computer system module in Claim 40, wherein the threshold is 0.7.

42. (Currently Amended) The computer system module in Claim [[26]] 34, further comprising a monitoring module operative to receive the reported sampled value of the first system metric and to assume the sampled value of the first system metric as an average for the sampled value not reported.

43. (Currently Amended) The computer system module in Claim 41, further comprising a display module operative to display the received and assumed values of the first system metric.

44-45. (Cancelled)

46. (Currently Amended) A computer network system comprising:

a plurality of network nodes having

a CPU;

a memory module coupled to CPU, operative to contain computer executable programs; and

a network interface operative to interconnect different nodes of the network,

wherein one computer executable program is loaded in the memory module in one node,

wherein the computer executable program is operative to perform [[the method in any one of claims 1 – 25]] a method for reducing the amount of data of system metrics collected or reported from agent nodes to a system performance monitor for system performance monitoring and analysis, the method comprising the steps of:

obtaining a sampled value of a first system metric;

reporting the sampled value of the first system metric if the sampled value is not between a first parameter and a second parameter, wherein the first parameter and the second parameter are any real numbers;

not reporting the sampled value if the sampled value is between the first and second parameters;

calculating a weighted running average, wherein—

$\bar{d}_n(w) = d_n w + \bar{d}_{n-1}(1-w)$,

$\bar{d}_n$ and $\bar{d}_{n-1}$ are the weighted running average after n'th or (n-1)'th sampling,

w is the weighing factor for the sampling,

$S_n = S_{n-1} + (n-1)(d_n - \bar{d}_{n-1})^2 / n$,

$\sigma_n^2 = S_n / n$,

S_n and S_{n-1} are the sum of the differences squared,

σ_n is the standard deviation,

calculating the first parameter to be $(\bar{d}_n - a\sigma_n)$; and

calculating the second parameter to be $(\bar{d}_n + b\sigma_n)$, wherein a and b are two constant real numbers.

47. (Currently Amended) A machine readable medium comprising a machine executable program, wherein the machine executable program is operative to perform [[the method in any one of claims 1 – 25]] a method for reducing the amount of data of system metrics collected or reported from agent nodes to a system performance monitor for system performance monitoring and analysis, the method comprising the steps of:

obtaining a sampled value of a first system metric;

reporting the sampled value of the first system metric if the sampled value is not between a first parameter and a second parameter, wherein the first parameter and the second parameter are any real numbers;

not reporting the sampled value if the sampled value is between the first and second parameters;

calculating a weighted running average, wherein—

$\bar{d}_n(w) = d_n w + \bar{d}_{n-1}(1-w)$,

$\bar{d}_n$ and $\bar{d}_{n-1}$ are the weighted running average after n'th or (n-1)'th sampling,

w is the weighing factor for the sampling,

$$S_n = S_{n-1} + (n-1)(d_n - \bar{d}_{n-1})^2 / n ,$$

$\sigma_n^2 = S_n / n$,

S_n and S_{n-1} are the sum of the differences squared,

σ_n is the standard deviation,

calculating the first parameter to be $(\bar{d}_n - a\sigma_n)$; and

calculating the second parameter to be $(\bar{d}_n + b\sigma_n)$, wherein a and b are two constant real numbers.

48. (New) The system in Claim 46, wherein a and b are any real numbers between 0.5 and 3.1.

49. (New) The system in Claim 48, wherein a and b are 1.

50. (New) The system in Claim 46, wherein continuing sampling is repeated for N times, wherein N is an integer.

51. (New) The system in Claim 50, wherein w is between $1/N$ and $2/N$.

52. (New) The system in Claim 50, wherein N is determined by a confidence interval cl and a tolerable variance error e_v, wherein $e_v = \frac{100 f(cl)^2}{N}$, and wherein $f(cl)$ is the $(1 + cl/100)/2$-quantile of the unit normal distribution.

53. (New) The system in Claim 46, wherein the method further comprises:

reporting the weighted running average $\overline{d}_{iN}$, wherein iN is a multiple of N, wherein i is an integer; and

reporting $\overline{d}_n$ and replacing $\overline{d}_{iN}$ with $\overline{d}_n$ when the $|\overline{d}_n - \overline{d}_{iN}|$ is greater than dd, wherein dd is a real number.

54. (New) The system in Claim 53, wherein dd is σ_n.

55. (New) The system in Claim 46, wherein $w = c/n$, wherein c is a real number, and wherein n is the n'th sampling.

56. (New) The system in Claim 55, wherein c is between 0.5 and 2.

57. (New) The system in Claim 47, wherein a and b are any real numbers between 0.5 and 3.1.

58. (New) The system in Claim 57, wherein a and b are 1.

59. (New) The system in Claim 47, wherein continuing sampling is repeated for N times, wherein N is an integer.

60. (New) The system in Claim 59, wherein w is between $1/N$ and $2/N$.

61. (New) The system in Claim 59, wherein N is determined by a confidence interval cl and a tolerable variance error e_v, wherein $e_v = \frac{100 f(cl)^2}{N}$, and wherein $f(cl)$ is the $(1 + cl/100)/2$-quantile of the unit normal distribution.

62. (New) The system in Claim 47, wherein the method further comprises:

reporting the weighted running average $\overline{d}_{iN}$, wherein iN is a multiple of N, wherein i is an integer; and

reporting $\overline{d}_n$ and replacing $\overline{d}_{iN}$ with $\overline{d}_n$ when the $|\overline{d}_n - \overline{d}_{iN}|$ is greater than dd, wherein dd is a real number.

63. (New) The system in Claim 62, wherein dd is σ_n.

64. (New) The system in Claim 47, wherein $w = c/n$, wherein c is a real number, and wherein n is the n'th sampling.

65. (New) The system in Claim 64, wherein c is between 0.5 and 2.